REMARKS / DISCUSSION OF ISSUES

In the non-final Office action dated October 09, 2009, it is noted that claims 1-19 are pending and stand rejected. Claims 1, 7, 11, and 16 are independent. Claims 1-19 are amended for non-statutory purposes, for example to correct typographical errors, grammatical purposes and to provide antecedent basis for several terms used in the claims. No new subject matter has been added.

Objections

On page 2 of the Office Action claims 1, 3-5, 8, 9, and 19 are objected to because of informalities.

By this response, claims 1, 3-5, 8, 9, and 19 are amended to correct the typographical errors and to define "P2P" in each independent claim. As such, the Applicants respectfully request the withdrawal of these claim objections.

35 U.S.C § 112

Claims 1, 2, 5, 7, 8, 11, 12, 16, and 17 stand rejected under 35 U.S.C § 112, second paragraph, as allegedly being indefinite and for lack of antecedent basis. The Applicants respectfully traverse this rejection.

By this response, claims 1, 2, 5, 7, 8, 11, 12, 16, and 17 are amended to correct typographical errors, grammatical purposes and to provide antecedent basis for several terms used in the claims obviating the rejections. However, the Applicants respectfully disagree with the following rejections pertaining to claims 8, 11, and 17.

On the top of page 4 of the Office Action, the Office mentions that claim 8 recites the limitations, "said network system" and "the scrambling code," and alleges that there are insufficient antecedent basis for these limitations in claim 8. The Applicants respectfully disagree because claim 7, from which claim 8 depends from, recites, "a network system," thereby providing sufficient antecedent basis for "said network system" of claim 8. Also, claim 8 recites, "receiving <u>a scrambling code</u> assigned by said network system, the scrambling code being assigned. . . ." Emphasis added. The

Applicants respectfully submit that "a scrambling code" as recited in claim 8 provides sufficient antecedent basis for "the scrambling code."

Claim 11 recites, "<u>a scrambling code</u> from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation by using the scrambling code. . . ." Emphasis added. The Applicants respectfully submit that "a scrambling code" as recited in claim 11 provides sufficient antecedent basis for "the scrambling code."

Claim 17 recites, "said network system." Claim 17 depends from claim 16, which recites, "a network system." Therefore, the Applicants respectfully submit that sufficient antecedent basis is provided for "said network system" of claim 17.

The Applicants respectfully submit that each claim rejection under 35 U.S.C § 112, second paragraph has been addressed. Accordingly, the Applicants respectfully request the withdrawal of these rejections.

<u>Cited art</u>

The following references have been cited and applied in the present Office Action: U.S. Patent Application Publication 2006/0215611 to Nakagawa et al. (hereinafter referred to as "Nakagawa"), and U.S. 2004/0002334 to Lee et al. (hereinafter "Lee")

<u>35 U.S.C § 102</u>

Claims 1-6 and 11-15 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Nakagawa. Claim 7 stands rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Lee. The Applicants respectfully disagree and submit that for at least the following reasons, Nakagawa does not anticipate claims 1-6 and 11-15 and also respectfully submit that Lee does not anticipate claim 7.

In order for a reference to anticipate a claim, the MPEP 2131 requires the reference to teach every element of the claim. According to MPEP 2131, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed.

Appl. No. 10/578,930
Reply to non-final Office action of 09 October 2009

Page 9 of 15

Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

It is respectfully submitted that the Office action fails to establish a prima facie case of anticipation of claim 1 under 35 U.S.C. 102(e).

The Applicants' claim 1 recites,

> *A method for mitigating P2P (Peer-to-Peer) interferences, performed by a network system, comprising:*
> *determining redundant code group information, according to code group usage information of a cell in which two UEs (User Equipments) attempting to establish a P2P link camp, and also according to the code group usage information of a cell's adjacent cells; and*
> *selecting a scrambling code from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation on P2P signals to be transferred between the two UEs by using the scrambling code.* Emphasis added.

Nakagawa relates to a radio communication apparatus having a function for allowing it to be connected both to an ad hoc network and to a TDD-CDMA mobile communication network (Abstract). The Office cites paragraphs [0104], [0173], [0012], and [0087] as allegedly anticipating a method for mitigating P2P (Peer-to-Peer) interferences, performed by a network system, comprising: determining redundant code group information, according to code group usage information of a cell in which two UEs (User Equipments) attempting to establish a P2P link camp, and also according to the code group usage information of the cell's adjacent cells, as set forth in claim 1. The Applicants respectfully submit that Nakagawa does not disclose the above-emphasized features of claim 1.

Nakagawa appears to have an objective of, (see Nakagawa, paragraph [0008]) providing a radio communication apparatus capable of avoiding corruption of the orthogonality of spreading codes even in the case of adopting a common TDD-CDMA system and using the same frequency band for communication in an ad-hoc network and in a mobile communication system.

However, applicants' claimed invention is completely different from Nakagawa. Nakagawa at Fig. 4 and paragraphs [0094]-[0100] describes a process for connecting to the ad-hoc network by acquiring information about apparatuses such as a mobile phone or laptop computer existing in the vicinity of a receiver. Next, it is determined whether the apparatus is authorized to access the ad-hoc network. Based on this determination, the eligible apparatuses are identified and their respective information is stored, upon which proper time slots are selected for communication. Clearly this process is not the same nor does it anticipate determining redundant code group information, according to code group usage information of a cell in which two UEs (User Equipments) attempting to establish a P2P link camp, and also according to the code group usage information of the cell's adjacent cells, as required in the Applicants' claim 1.

Furthermore, paragraph [0104] of Nakagawa describes scrambling codes used to identify a mobile communication network and an ad-hoc network, whereby the scrambling codes are specified for each cell so that they are not duplicated among near cells. This is not the same as determining redundant code group information. Redundant code group information, as explained in the Applicants' specification at the bottom of page 18, relates to the code groups which are not used by both the cell where the user equipments are camping and the adjacent cells.

Paragraph [0173] of Nakagawa further explains the scrambling code as used by Nakagawa. Paragraph [0012] introduces a method for synchronizing an ad-hoc network with a mobile communications network. Paragraph [0087] describes an ad-hoc communication function for constructing an ad-hoc network with other radio communication apparatuses existing around them so that the radio communication apparatuses within the ad-hoc network mutually communicate with one another. However, none of these cited paragraphs of Nakagawa disclose determining redundant code group information, according to code group usage information of a cell in which two UEs (User Equipments) attempting to establish a P2P link camp, and also according to the code group usage information of the cell's adjacent cells.

The Office cites paragraphs [0124], [0125], [0173], [0153], and [0104] of Nakagawa as allegedly anticipating selecting a scrambling code from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation on P2P signals to be transferred between the two UEs by using the scrambling code, as required by claim 1. The Applicants respectfully submit that none of these paragraphs discloses this feature of claim 1.

Paragraphs [0124] and [0125] of Nakagawa describe specific embodiments of a transmitter and receiver, respectively. As mentioned above, paragraph [0173] explains Nakagawa's use of the scrambling code. Paragraph [0153] discloses a means for removing interference signals to increase the communication capacity of the ad-hoc network, but does not mention or disclose selecting a scrambling code from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation on P2P signals to be transferred between the two UEs by using the scrambling code. Paragraph [0104], as discussed above, also does not disclose such feature as required by claim 1.

Nakagawa does not disclose or even suggest the required elements of claim 1, as discussed above. As such, the Applicants respectfully request the withdrawal of the rejection to claim 1 under 35 U.S.C. 102(e).

Independent claim 11 is different from claim 1. For example, claim 11 is directed toward a network system, while claim 1 is directed toward method. Although different from claim 1, claim 11 includes patentable subject matter similar to that of claim 1 as explained above.

The Office action uses the same arguments as set forth with regard to claim 1, alleging that claim 11 is anticipated by Nakagawa under 35 U.S.C. §102(e).

Independent claim 11 recites:

> A network system capable of mitigating P2P (Peer-to-Peer) interferences, comprising:
> a first determining unit, for _determining redundant code group information_ according to code group usage information of a cell where two UEs attempting to establish a P2P link are camping, and also according to the code group usage information of a cell's adjacent cells; and
> a selecting unit, for _selecting a scrambling code from the_

Appl. No. 10/578,930
Reply to non-final Office action of 09 October 2009

Page 12 of 15

redundant code group information and assigning it to the two UEs, so
that the two UEs can perform a scrambling operation by using the
scrambling code on P2P signals to be transferred between the two
UEs. Emphasis added.

The Applicants repeat the above arguments for claim 1 and apply them to claim
11. As pointed out above, none of these cited paragraphs of Nakagawa disclose
determining redundant code group information, according to code group usage
information of a cell in which two UEs (User Equipments) attempting to establish a P2P
link camp, and also according to the code group usage information of the cell's adjacent
cells. Furthermore, Nakagawa does not mention or disclose selecting a scrambling
code from the redundant code group information and assigning it to the two UEs, so
that the two UEs can perform a scrambling operation on P2P signals to be transferred
between the two UEs by using the scrambling code. As such, the Applicants
respectively submit that the Office has not presented a prima facie case anticipation
and the rejection to independent claim 11 under 35 U.S.C. 102(e), are unfounded and
should be withdrawn. Accordingly, the Applicants respectfully submit that claim 11 is in
condition for allowance.

With respect to dependent claims 2-6, which depend from independent claim 1,
and dependent claims 12-15, which depend from claim 11, each dependent claim
depends from an allowable independent claim. Thus, each of dependent claims 2-6
and 12-15 is patentable for at least the same reasons discussed above with respect to
claim 1, from which it depends, with each dependent claim containing further
distinguishing patentable features.

It is respectfully submitted that the rejections to claims 1-6 and 11-15 under 35
U.S.C. § 102(e) have been overcome. Hence, withdrawal of the rejections and early
allowance of the claims are respectfully requested.

Claim 7 stands rejected under 35 U.S.C. 102(e) as allegedly being anticipated by
Lee. The Applicants' claim 7 recites,

A method for mitigating P2P (Peer-to-Peer) interferences,
performed by a UE (User Equipment), comprising:
acquiring code group usage information of a cell where the UE
is camping through a cell search procedure;

Appl. No. 10/578,930
Reply to non-final Office action of 09 October 2009

Page 13 of 15

> *reading the code group usage information of adjacent cells*
> *through an adjacent cell search procedure; and*
> *sending the code group usage information of the cell where the*
> *UE is camping to a network system and also sending the code group*
> *usage information of the cell's adjacent cells to the network system.*
> Emphasis added.

The Office cites paragraphs [0014], [0029], [0030], and [0033]-[0035] of Lee as allegedly anticipating the above-mentioned limitations of claim 7. The Applicants respectfully disagree.

Lee relates to a method for performing an inter-RAT (inter Radio Access Technologies) measurement from NB-TDD (Narrow Band-Time Division Duplexing) to GSM. (Title). As explained in paragraphs [0010] - [0012], a handover between service areas using different communication schemes is defined as "inter-RAT handover," and monitoring the states of Node Bs for the inter-RAT handover is termed "inter-RAT measurement." Inter-RAT measurements are performed in various ways in the 3G mobile communication systems and applied differently depending on whether the system identifies downlink/uplink/transmission/reception by frequency or by time. The Office appears to interpret that the inter-RAT measurements are equivalent to code group usage information of claim 1. However, as explained by Lee at paragraph [0011], the inter-RAT measurements are apparently either based on frequency bands or data rates. Nothing in Lee suggests that the inter-RAT measurements are based on code group information. As such, the inter-RAT measurement is completely different from the code group information of claim 1.

Lee at paragraph [0014] explains Fig. 1B, to which Lee admits as prior art, discloses a SYNC-DL (synchronization download) code is used for initial cell search and synchronization to a searched cell. However, paragraph [0014] does not disclose at all regarding <u>acquiring code group usage information</u> as required in claim 7.

Paragraphs [0029] and [0030] of Lee disclose that the UE performs inter-RAT measurements on signals from the GSM cells. As pointed out above, inter-RAT measurements are completely different from code group information. Lee at [0033]-[0035] discloses the UE simply measures the strengths of arbitrary channels signals from the GSM cells and reports the signal strength to the UTRAN (UMTS Radio Access

Network). However, paragraphs [0033]-[0035] do not at all disclose or even suggest acquiring code group usage information of a cell where the UE is camping through a cell search procedure; reading the code group usage information of adjacent cells through an adjacent cell search procedure; and sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell's adjacent cells to the network system.

Because Lee does not teach every element of claim 7, Lee does not anticipate claim 7. As such, the Applicants respectfully request the withdrawal of the rejection to claim 7 under 35 U.S.C. 102(e).

35 U.S.C § 103

Claims 8-10 and 16-19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lee in view of Nakagawa. The Applicants respectfully traverse these rejections.

Dependent claims 8-10 depend ultimately upon allowable claim 7 and incorporate all of the respective features of claim 7, in addition to containing further distinguishing patentable features. The Applicants essentially repeat the above arguments from claim 7 and apply them to claims 8-10. Nakagawa does not cure the deficiencies of Lee as applied to the features of claim 7 as discussed above. Hence, the withdrawal of the rejection of dependent claims 8-10 under 35 U.S.C. § 103(a) is respectfully requested.

Independent claim 16, although different from claim 7, includes several distinguishing features which the Applicants apply the above arguments from claim 7.

Independent claim 16 is different from claim 7. For example, claim 16 is directed to a UE (User Equipment), while claim 7 is directed toward method. Although different from claim 7, claim 16 includes the patentable features to which the argumens claim 1 as explained above can be applied. The Applicants essentially repeat the above arguments for claim 7 and apply them to claim 16. Lee does not cure the deficiencies of Nakagawa with respect to claim 16. As such, the Applicants respectively submit that the rejection to independent claim 16 under 35 U.S.C. 103(a) is unfounded and should

be withdrawn. Accordingly, the Applicants respectfully submit that claim 16 is in condition for allowance.

Dependent claims 17-19 depend ultimately upon allowable claim 16 and incorporate all of the respective features of claim 16, in addition to containing further distinguishing patentable features. The Applicants essentially repeat the above arguments from claim 16 and apply them to claims 17-19. Hence, the withdrawal of the rejection of dependent claims 17-19 under 35 U.S.C. § 103(a) is respectfully requested.

Conclusion

In view of the foregoing, the Applicants respectfully request that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

If there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

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